

12.8 kHz-wide signal with modulation ranging from QPSK to 16QAM. The signals will be made on authorized and coordinated L-band spectrum in the 1626.5 to 1660 MHz frequency range. The ATs will receive the same type of signal on authorized and coordinated L-band spectrum in the satellite downlink band, 1525-1559 MHz. The peak EIRP of the mobile AT will be less than 1 W, with an omni-directional antenna. The AT will comply with the out-of-band emission (“OOBE”) limits required by the FCC.¹

Geographic area of testing. Initial testing of the ATs will occur within a 150-mile radius of the LightSquared Napa, Ca. facility. Follow-on testing will occur within a 150-mile radius of Ottawa, Canada, subject to the necessary regulatory approvals from Industry Canada. Further testing will occur in selected areas throughout North America (including Hawaii and Alaska). All of the proposed testing in the United States is within the authorized service areas for SkyTerra-1. *See SkyTerra-1 Licensing Order*, at ¶ 1. The radiated power spectral density from the mobile ATs will be much lower than that of currently operating mobile terminals communicating with LightSquared’s current generation satellites, MSAT-1 and MSAT-2, which also operate over this same geographic area. *See Call Signs E930367, E980179.* Accordingly, the testing will not cause harmful interference to spectrum users, including LightSquared’s own customers communicating with the MSAT satellites. LightSquared will keep records of the dates and times when operations are conducted pursuant to this experimental authority.

Satellite Gateway Transmissions. The mobile ATs will be communicating with SkyTerra 1, and thence to gateways located in Napa, California and Ottawa, Canada. Operation of SkyTerra 1 and these base stations are already authorized under separate authority by the appropriate regulatory agency. *See SkyTerra-1 Licensing Order; Call Sign E080030.*

Contemplated Hours of Operation. The gateways and ATs are capable of operation 24 hours per day and 7 days per week, but LightSquared expects testing to be conducted normally during regular business hours (9 AM – 6 PM; Monday - Friday).

Goal of Experiment. The major aim of this testing is to develop and test ATs for use with LightSquared’s next-generation satellite system in preparation for the commercial launch of MSS. The equipment to be operated pursuant to this STA is strictly for testing purposes only, and no commercial service will be offered.

LightSquared acknowledges that operations pursuant to an experimental STA are strictly on a non-harmful interference basis. LightSquared’s Network Operations Center

¹ Although the ATs will communicate only with LightSquared’s satellite and not directly with terrestrial base stations, the devices, nonetheless, will meet the more stringent OOBE limits established by the FCC for dual-mode satellite-terrestrial devices. *In the Matter of Mobile Satellite Ventures Subsidiary LLC*, 19 FCC Rcd 22144, at ¶¶ 35, 36, and 95(c) (2004); *cf.* 47 C.F.R. § 25.216(h),(i). The ATs will also meet the more general OOBE limits in 47 C.F.R. § 25.202(f).

("NOC") can be contacted 24 hours/7 days per week in the event of interference concerns at the following number: 1-877-277-2360.